

STN Columbus

* * * * * Welcome to STN International * * * * *

NEWS 1 Web Page URLs for STN Seminar Schedule - N. America
NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 SEP 09 ACD predicted properties enhanced in REGISTRY/ZREGISTRY
NEWS 4 OCT 03 MATHDI removed from STN
NEWS 5 OCT 04 CA/CAPLUS-Canadian Intellectual Property Office (CIPO) added
to core patent offices
NEWS 6 OCT 13 New CAS Information Use Policies Effective October 17, 2005
NEWS 7 OCT 17 STN(R) AnaVist(TM), Version 1.01, allows the export/download
of CAPLUS documents for use in third-party analysis and
visualization tools
NEWS 8 OCT 27 Free KWIC format extended in full-text databases
NEWS 9 OCT 27 DIOGENES content streamlined
NEWS 10 OCT 27 EPFULL enhanced with additional content
NEWS 11 NOV 14 CA/CAPLUS - Expanded coverage of German academic research
NEWS 12 NOV 30 REGISTRY/ZREGISTRY on STN(R) enhanced with experimental
spectral property data
NEWS 13 DEC 05 CASREACT(R) - Over 10 million reactions available
NEWS 14 DEC 14 2006 MeSH terms loaded in MEDLINE/LMEDLINE
NEWS 15 DEC 14 2006 MeSH terms loaded for MEDLINE file segment of TOXCENTER
NEWS 16 DEC 14 CA/CAPLUS to be enhanced with updated IPC codes
NEWS 17 DEC 16 MARPATprev will be removed from STN on December 31, 2005
NEWS 18 DEC 21 IPC search and display fields enhanced in CA/CAPLUS with the
IPC reform
NEWS 19 DEC 23 New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/USPAT2

NEWS EXPRESS JANUARY 03 CURRENT VERSION FOR WINDOWS IS V8.01,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
V8.0 USERS CAN OBTAIN THE UPGRADE TO V8.01 AT
<http://download.cas.org/express/v8.0-Discover/>

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FILE 'HOME' ENTERED AT 13:58:49 ON 09 JAN 2006

STN Columbus

=> fil ca; e us-20040185366/pn

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

0.21

FILE 'CA' ENTERED AT 13:59:10 ON 09 JAN 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

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FILE COVERS 1907 - 5 Jan 2006 VOL 144 ISS 3

FILE LAST UPDATED: 5 Jan 2006 (20060105/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

E1	1	US2004185364/PN
E2	1	US2004185365/PN
E3	1 -->	US2004185366/PN
E4	1	US2004185367/PN
E5	1	US2004185368/PN
E6	1	US2004185369/PN
E7	1	US2004185370/PN
E8	1	US2004185371/PN
E9	1	US2004185372/PN
E10	1	US2004185373/PN
E11	1	US2004185374/PN
E12	1	US2004185375/PN

=> s e3

L1 1 US2004185366/PN

=> sel rn

E1 THROUGH E7 ASSIGNED

=> fil reg; s e1-e7

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

2.38

2.59

FILE 'REGISTRY' ENTERED AT 13:59:27 ON 09 JAN 2006

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Property values tagged with IC are from the ZIC/VINITI data file

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STRUCTURE FILE UPDATES: 8 JAN 2006 HIGHEST RN 871465-69-9
DICTIONARY FILE UPDATES: 8 JAN 2006 HIGHEST RN 871465-69-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

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*****
*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*
*****
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Structure search iteration limits have been increased. See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

```
1 1304-76-3/BI
  (1304-76-3/RN)
1 1309-48-4/BI
  (1309-48-4/RN)
1 1314-23-4/BI
  (1314-23-4/RN)
1 329901-89-5/BI
  (329901-89-5/RN)
1 737000-67-8/BI
  (737000-67-8/RN)
1 737000-68-9/BI
  (737000-68-9/RN)
1 737000-69-0/BI
  (737000-69-0/RN)
L2 7 (1304-76-3/BI OR 1309-48-4/BI OR 1314-23-4/BI OR 329901-89-5/BI
    OR 737000-67-8/BI OR 737000-68-9/BI OR 737000-69-0/BI)
```

=> d scan

L2 7 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Iron magnesium manganese oxide (FeMg0.02Mn0.48O2) (9CI)
MF Fe . Mg . Mn . O
CI TIS

Component	Ratio
O	2
Mn	0.48
Mg	0.02
Fe	1

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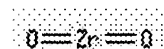
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1).

L2 7 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
 IN Iron magnesium manganese oxide (FeMg0.05Mn0.45O2) (9CI)
 MF Fe . Mg . Mn . O
 CI TIS

Component	Ratio
O	2
Mn	0.45
Mg	0.05
Fe	1

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1).

L2 7 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
 IN Zirconium oxide (ZrO2) (8CI, 9CI)
 ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT
 MF O2 Zr
 CI COM



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1).

L2 7 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
 IN Bismuth oxide (Bi2O3) (8CI, 9CI)
 MF Bi2 O3
 CI COM, MAN

STRUCTURE DIAGRAM IS NOT AVAILABLE

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1).

L2 7 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
 IN Iron magnesium manganese oxide (FeMg0.1Mn0.4O2) (9CI)
 MF Fe . Mg . Mn . O
 CI TIS

Component	Ratio
O	2
Mn	0.4
Mg	0.1
Fe	1

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1).

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L2 7 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
 IN Iron manganese oxide (FeMn0.5O2) (9CI)
 MF Fe . Mn . O
 CI TIS

Component	Ratio
O	2
Mn	0.5
Fe	1

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1).

L2 7 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
 IN Magnesium oxide (MgO) (9CI)
 ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT
 MF Mg O
 CI COM

Mg=O

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

=> s fe mg mn o/mf
 L3 0 FE MG MN O/MF

=> s fe mg mn o/elf
 L4 72 FE MG MN O/ELF

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	11.28	13.87

FILE 'CA' ENTERED AT 14:01:48 ON 09 JAN 2006
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FILE COVERS 1907 - 5 Jan 2006 VOL 144 ISS 3
 FILE LAST UPDATED: 5 Jan 2006 (20060105/ED)

STN Columbus

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This file contains CAS Registry Numbers for easy and accurate substance identification.

L5 248 L4

=> s 15 and carrier
248262 CARRIER

L6 13 L5 AND CARRIER

=> d fbib ab hitstr 1-13; fil stnguide

L6 ANSWER 1 OF 13 CA COPYRIGHT 2006 ACS on STN

Full Text

AN 143:469572 CA

TI Developer and image forming method using the developer

IN Tomita, Masami; Kondou, Tomio; Yamashita, Masahide; Suzuki, Kousuke

PA Ricoh Company, Ltd., Japan

SO Eur. Pat. Appl., 38 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1596254	A1	20051116	EP 2005-10080	20050509
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
				JP 2004-141523	A 20040511
	JP 2005321725	A2	20051117	JP 2004-141523	20040511
	US 2005260516	A1	20051124	US 2005-126270	20050511
				JP 2004-141523	A 20040511

AB A developer for an electrophotog. tandem image forming method is provided that contains a toner; and a carrier, wherein the toner has a shape factor SF-1 of from 120 to 160, an av. circularity of from 0.93 to 0.98, a wt.-av. particle diam. (D4) of from 3.0 to 8.0 μ m, and a ratio (D4/Dn) of wt.-av. particle diam. (D4) to no.-av. particle diam. (Dn) of from 1.01 to 1.20, and wherein the carrier is almost a spherical ferrite coated with a resin wherein alumina is dispersed, which has an av. particle diam. of from 20 to 45 μ m and the following formula: (MgO)_x(MnO)_y(Fe₂O₃)_z wherein x is from 1 to 5 mol %, y is from 5 to 55 mol % and z is from 45 to 55 mol %.

IT 869287-69-4, Iron magnesium manganese oxide

(Fe_{0.96}Mg_{0.02}Mn_{0.50}1.95)

RL: TEM (Technical or engineered material use); USES (Uses)

(electrophotog. developer and image forming method contg.)

RN 869287-69-4 CA

CN Iron magnesium manganese oxide (Fe_{0.96}Mg_{0.02}Mn_{0.50}1.95) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	1.95	17778-80-2
Mn	0.5	7439-96-5
Mg	0.02	7439-95-4
Fe	0.96	7439-89-6

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RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 13 CA COPYRIGHT 2006 ACS on STN

Full Text

AN 143:86639 CA

TI Electrophotographic two-component developer and its carrier coated with resin

IN Owada, Takeshi; Kigami, Yoshihiro; Shintaku, Takashi

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005172974	A2	20050630	JP 2003-409831	20031209
				JP 2003-409831	20031209
AB	The developer contains a toner contg. a binder resin and a colorant and a carrier with wt. av. particle diam. $\leq 75 \mu\text{m}$, comprising a core particle and its coating resin, in which the $\leq 80\%$ of the core particle surface is covered with the resin. The carrier comprises the core particle of $(\text{MnO})_x(\text{MgO})_y(\text{Fe}_2\text{O}_3)_z$ ($x + y + z = 100 \text{ mol}\%$; a part of MnO , MgO , and Fe_2O_3 is substituted with SrO). The developer prevents toner scattering, showing stable image d. and area image uniformity.				
IT	855699-85-3, Iron magnesium manganese oxide ($\text{Fe}_{1.46}\text{Mg}_{0.04}\text{Mn}_{0.23}\text{O}_{2.46}$) 855699-86-4, Iron magnesium manganese oxide ($\text{FeMg}_{0.14}\text{Mn}_{0.35}\text{O}_2$) RL: TEM (Technical or engineered material use); USES (Uses) (electrophotog. carrier comprising iron magnesium manganese strontium oxide core coated with resin)				
RN	855699-85-3 CA				
CN	Iron magnesium manganese oxide ($\text{Fe}_{1.46}\text{Mg}_{0.04}\text{Mn}_{0.23}\text{O}_{2.46}$) (9CI) (CA INDEX NAME)				

Component	Ratio	Component Registry Number
O	2.46	17778-80-2
Mn	0.23	7439-96-5
Mg	0.04	7439-95-4
Fe	1.46	7439-89-6

RN 855699-86-4 CA

CN Iron magnesium manganese oxide ($\text{FeMg}_{0.14}\text{Mn}_{0.35}\text{O}_2$) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2	17778-80-2
Mn	0.35	7439-96-5
Mg	0.14	7439-95-4
Fe	1	7439-89-6

L6 ANSWER 3 OF 13 CA COPYRIGHT 2006 ACS on STN

Full Text

AN 141:197313 CA

TI Electrophotographic coated carrier and two-component developer

IN Shinmura, Issei; Kobayashi, Hiromichi; Itagoshi, Tsuyoshi; Sato, Yuji

PA Powdertech Co. Ltd., Japan

STN Columbus

SO Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1445657	A2	20040811	EP 2004-250655	20040206
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
				JP 2003-31408	A 20030207
	JP 2004240322	A2	20040826	JP 2003-31408	20030207
	US 2004185366	A1	20040923	US 2004-774045	20040206
				JP 2003-31408	A 20030207

AB Disclosed is a carrier core material for an electrophotog. developing agent, which comprises 100 parts by wt. of a ferrite component represented by the formula (A): $(\text{MnO})_x(\text{MgO})_y(\text{Fe}_2\text{O}_3)_2$ (x, y and z are each expressed in % by mol and are nos. satisfying the conditions of $40 \leq x \leq 60$, $0.1 \leq y \leq 10$ and $x+y+z = 100$) and 0.1-5.0 parts by wt. of ZrO_2 that is present in the ferrite component without forming a solid soln., and which has a magnetization at 1000 (103/4 π A/m) of 65-85 Am²/kg, and an elec. resistance at an applied voltage of 1000 V of 105-109 Ω . $(\text{MnO})_x(\text{MgO})_y(\text{Fe}_2\text{O}_3)_2$ wherein x, y and z are each expressed in % by mol and are nos. satisfying the conditions of $40 \leq x \leq 60$, $0.1 \leq y \leq 10$ and $x+y+z = 100$. Also disclosed is a two-component developing agent comprising a coated carrier, which is obtained by coating the above carrier core material with a resin, and toner particles. Further disclosed is an image forming method comprising developing an electrostatic latent image formed by the use of an alternating elec. field, with the two-component developing agent. The carrier core material and the coated carrier have high magnetization and high resistance. According to the two-component developing agent of the invention, an excellent image can be formed.

IT 737000-67-8, Iron magnesium manganese oxide ($\text{FeMg}_0.05\text{Mn}_0.45\text{O}_2$)
 737000-68-9, Iron magnesium manganese oxide ($\text{FeMg}_0.1\text{Mn}_0.40\text{O}_2$)
 737000-69-0, Iron magnesium manganese oxide ($\text{FeMg}_0.02\text{Mn}_0.48\text{O}_2$)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (electrophotog. coated carrier and two-component developer)

RN 737000-67-8 CA
 CN Iron magnesium manganese oxide ($\text{FeMg}_0.05\text{Mn}_0.45\text{O}_2$) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2	17778-80-2
Mn	0.45	7439-96-5
Mg	0.05	7439-95-4
Fe	1	7439-89-6

RN 737000-68-9 CA

CN Iron magnesium manganese oxide ($\text{FeMg}_0.1\text{Mn}_0.40\text{O}_2$) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2	17778-80-2
Mn	0.4	7439-96-5
Mg	0.1	7439-95-4
Fe	1	7439-89-6

RN 737000-69-0 CA

CN Iron magnesium manganese oxide ($\text{FeMg}_0.02\text{Mn}_0.48\text{O}_2$) (9CI) (CA INDEX NAME)

STN Columbus

Component	Ratio	Component Registry Number
=====	=====	=====
O	2	17778-80-2
Mn	0.48	7439-96-5
Mg	0.02	7439-95-4
Fe	1	7439-89-6

L6 ANSWER 4 OF 13 CA COPYRIGHT 2006 ACS on STN

Full Text

AN 141:197312 CA

TI Electrophotographic **carrier** core material and two-component developer

IN Kobayashi, Hiromichi; Shinmura, Issei; Itagoshi, Tsuyoshi; Sato, Yuji

PA Powdertech Co. Ltd., Japan

SO Eur. Pat. Appl., 25 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
PI EP 1445656	A2	20040811	EP 2004-250659	20040206
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
			JP 2003-31407	A 20030207
JP 2004240321	A2	20040826	JP 2003-31407	20030207
US 2004229151	A1	20041118	US 2004-773559	20040206
			JP 2003-31407	A 20030207
AB Disclosed is an electrophotog. carrier core material contg. at least one metal oxide (MLO) having a m.p. of $\leq 1000^{\circ}\text{C}$ and at least one metal oxide (MHO) having a m.p. $\geq 1800^{\circ}\text{C}$, wherein the metal (MH) for constituting the metal oxide (MHO) has an elec. resistivity of $\geq 10^{-5} \Omega\text{cm}$. Also disclosed is a two-component developing agent comprising a coated carrier , which comprises the carrier core material coated with a resin, and toner particles. Further disclosed is an image forming method comprising developing an electrostatic latent image formed on a photosensitive member with the two-component developing agent using an alternating elec. field. The carrier core material and the coated carrier have high magnetization and are free from occurrence of leakage of elec. charge over a wide range of elec. field from low elec. field to high elec. field. The two-component developing agent of the invention has an excellent image forming properties.				
IT 737000-67-8, Iron magnesium manganese oxide (FeMg0.05Mn0.45O2)				
737000-69-0, Iron magnesium manganese oxide (FeMg0.02Mn0.48O2)				
737008-07-0, Iron magnesium manganese oxide (FeMg0.03Mn0.47O2)				
RL: TEM (Technical or engineered material use); USES (Uses)				
(electrophotog. carrier core material and two-component developer)				
RN 737000-67-8 CA				
CN Iron magnesium manganese oxide (FeMg0.05Mn0.45O2) (9CI) (CA INDEX NAME)				

Component	Ratio	Component Registry Number
=====	=====	=====
O	2	17778-80-2
Mn	0.45	7439-96-5
Mg	0.05	7439-95-4
Fe	1	7439-89-6

RN 737000-69-0 CA

STN Columbus

CN Iron magnesium manganese oxide (FeMg0.02Mn0.48O2) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2	17778-80-2
Mn	0.48	7439-96-5
Mg	0.02	7439-95-4
Fe	1	7439-89-6

RN 737008-07-0 CA

CN Iron magnesium manganese oxide (FeMg0.03Mn0.47O2) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2	17778-80-2
Mn	0.47	7439-96-5
Mg	0.03	7439-95-4
Fe	1	7439-89-6

L6 ANSWER 5 OF 13 CA COPYRIGHT 2006 ACS on STN

Full Text

AN 139:108668 CA

TI Electrophotographic apparatus suppressing filming of small-diameter toners

IN Shigeta, Kunio; Akita, Hiroshi; Kimura, Takenobu; Sato, Yotaro

PA Konica Co., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003202785	A2	20030718	JP 2002-1344	20020108
				JP 2002-1344	20020108

AB The app. have org. photoreceptors and cleaning rubber blades satisfying impact resilience 30-70%, hardness 60-70°, free length 7-12 mm, and linear contact pressure 5.0-30 mN/cm and employ toners of vol.-av. diam. (ϕ) 3-5 μ m and of the max. adhesion 0.2-0.4 mg/cm² to photoreceptors under conditions with no use of intermediate transfers. The org. photoreceptors have surface layers comprising condensates of OH- and/or hydrolyzable group-bearing org. Si compds. [and crosslinkable compds. (R1O)4-m-nSiR2mR3n [R1 = C1-6 alkyl; R2 = OH, alkyl(oxy), aryl(oxy); R3 = OH, amino, alkoxy, aryloxy; m = 0-2; n = 1-3; m + n = 1-3]].

IT 558474-33-2, Iron magnesium manganese oxide

(Fe1.56Mg0.04Mn0.18O2.56)

RL: TEM (Technical or engineered material use); USES (Uses)

(carriers; electrophotog. app. having polysiloxane-coated org. photoreceptors and suppressing filming of fine toners)

RN 558474-33-2 CA

CN Iron magnesium manganese oxide (Fe1.56Mg0.04Mn0.18O2.56) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2.56	17778-80-2
Mn	0.18	7439-96-5
Mg	0.04	7439-95-4

STN Columbus

Fe | 1.56 | 7439-89-6

L6 ANSWER 6 OF 13 CA COPYRIGHT 2006 ACS on STN

Full Text

AN 139:60422 CA

TI Electrophotographic development carrier showing excellent tribocharging properties and electrophotographic developer

IN Iida, Tomohide

PA Dowa Mining Co., Ltd., Japan; Dowa Teppun Kogyo K. K.

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003186253	A2	20030703	JP 2001-381222	20011214
				JP 2001-381222	20011214

AB The title electrophotog. carrier comprises soft ferrite particles, having an av. diam. of 40-60 μ m and a d. of 2.25-2.45 g/cm³, and 2.5-5.0 % of resin coatings. The soft ferrite particles are completely coated with the resins. The carrier scattering is suppressed.

IT 108823-01-4P, Magnesium manganese ferrite (Mg_{0.5}Mn_{0.5}Fe₂O₄)

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(carrier core; electrophotog. development carrier showing excellent tribocharging properties and electrophotog. developer)

RN 108823-01-4 CA

CN Iron magnesium manganese oxide (Fe₂Mg_{0.5}Mn_{0.5}O₄) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	4	17778-80-2
Mn	0.5	7439-96-5
Mg	0.5	7439-95-4
Fe	2	7439-89-6

L6 ANSWER 7 OF 13 CA COPYRIGHT 2006 ACS on STN

Full Text

AN 133:259330 CA

TI Resin-coated carrier, two-component developer and image forming method

IN Taya, Masaaki; Kohtaki, Takaaki; Ichikawa, Yasuhiro

PA Canon Kabushiki Kaisha, Japan

SO Eur. Pat. Appl., 29 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1037118	A2	20000920	EP 2000-105412	20000314
	EP 1037118	A3	20001220		
				R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO	
				JP 1999-67898	A 19990315
	JP 2000330342	A2	20001130	JP 2000-71436	20000315
				JP 1999-67898	A 19990315
	US 6187490	B1	20010213	US 2000-526473	20000315

STN Columbus

JP 1999-67898

A 19990315

AB The invention relates to a carrier in a developer used for developing elec. latent images or magnetic latent images in electrophotog., electrostatic printing and a resin-coated carrier with better durability, image-forming property and a 2-component developer and an image-forming method using the resin-coated carrier. A 2-component developer suitable for electrophotog. is formed of a toner and a resin-coated carrier. The resin-coated carrier is formed of carrier core particles and 0.01-2.0% based on the carrier core particles of a resin coating layer coating the carrier core particles. The resin-coated carrier has an av. particle size of 25-55 μm and the carrier core particles comprise a ferrite component (I) below:
 $(\text{Fe}_{2\text{O}_3})_a(\text{MnO})_b(\text{MgO})_c(\text{A})_d$ wherein A = a mixt. of SrO , CaO and Al_2O_3 , and a, b, c and d are nos. representing mol. fractions of assocd. components and satisfying: $0.4 < a < 0.6$, $0.35 < b < 0.45$, $0.07 < c < 0.12$, $0.005 < d < 0.015$, and a and b and c and d ≤ 1 . Because of the specific compn., the carrier core particles are provided with a smooth surface, which is reflected into a surface smoothness of the resin-coated carrier even after coated with a thin resin coating layer. Accordingly, the resin-coated carrier is provided with a good balance among toner-charging ability, flowability and durability suitable for reprodn. of an original having a large areal percentage.

IT 295340-01-1, Iron magnesium manganese oxide

($\text{Fe}_{1.03}\text{Mg}_{0.1}\text{Mn}_{0.38}\text{O}_{2.03}$) 295340-05-5, Iron magnesium manganese

oxide ($\text{Fe}_{1.05}\text{Mg}_{0.09}\text{Mn}_{0.38}\text{O}_{2.05}$) 295340-07-7, Iron magnesium

manganese oxide ($\text{Fe}_{1.04}\text{Mg}_{0.09}\text{Mn}_{0.39}\text{O}_{2.04}$) 295340-25-9, Iron

magnesium manganese oxide ($\text{Fe}_{1.21}\text{Mg}_{0.13}\text{Mn}_{0.26}\text{O}_{2.2}$)

RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)

(two-component developer for electrophotog. comprising toner and resin-coated carrier core contg.)

RN 295340-01-1 CA

CN Iron magnesium manganese oxide ($\text{Fe}_{1.03}\text{Mg}_{0.1}\text{Mn}_{0.38}\text{O}_{2.03}$) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2.03	17778-80-2
Mn	0.38	7439-96-5
Mg	0.1	7439-95-4
Fe	1.03	7439-89-6

RN 295340-05-5 CA

CN Iron magnesium manganese oxide ($\text{Fe}_{1.05}\text{Mg}_{0.09}\text{Mn}_{0.38}\text{O}_{2.05}$) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2.05	17778-80-2
Mn	0.38	7439-96-5
Mg	0.09	7439-95-4
Fe	1.05	7439-89-6

RN 295340-07-7 CA

CN Iron magnesium manganese oxide ($\text{Fe}_{1.04}\text{Mg}_{0.09}\text{Mn}_{0.39}\text{O}_{2.04}$) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number

STN Columbus

O	2.04	17778-80-2
Mn	0.39	7439-96-5
Mg	0.09	7439-95-4
Fe	1.04	7439-89-6

RN 295340-25-9 CA

CN Iron magnesium manganese oxide (Fe1.21Mg0.13Mn0.26O2.2) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2.2	17778-80-2
Mn	0.26	7439-96-5
Mg	0.13	7439-95-4
Fe	1.21	7439-89-6

L6 ANSWER 8 OF 13 CA COPYRIGHT 2006 ACS on STN

Full Text

AN 131:94837 CA

TI Electrophotographic magnetic carrier particles, electrophotographic apparatus, and process cartridge

IN Aida, Shuichi; Mizoe, Marekatsu; Arahira, Fumihiro; Takamori, Toshio

PA Canon K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11194585	A2	19990721	JP 1998-299597	19981021
	JP 3595702	B2	20041202	JP 1997-288633	A 19971021

AB The electrophotog. magnetic carrier particles comprises 100 parts of ferrite (MnO)0.2-0.5(MgO)0.05-0.25(Fe2O3)0.4-0.6 and 0.01-3 parts of P. The particles have higher P concn. on their surfaces. The particles may have coupling agents on their surfaces. The electrophotog. magnetic carrier particles shows excellent durability and are esp. suitable for cleanerless electrophotog. app.

IT 229618-10-4, Iron magnesium manganese oxide

(Fe1.08Mg0.11Mn0.35O2.08) 229618-12-6, Iron magnesium manganese oxide (FeMg0.2Mn0.3O2)

RL: TEM (Technical or engineered material use); USES (Uses)

(ferrite for electrophotog. magnetic carrier particles)

RN 229618-10-4 CA

CN Iron magnesium manganese oxide (Fe1.08Mg0.11Mn0.35O2.08) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	2.08	17778-80-2
Mn	0.35	7439-96-5
Mg	0.11	7439-95-4
Fe	1.08	7439-89-6

RN 229618-12-6 CA

CN Iron magnesium manganese oxide (FeMg0.2Mn0.3O2) (9CI) (CA INDEX NAME)

Component	Ratio	Component
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STN Columbus

		Registry Number
O	2	17778-80-2
Mn	0.3	7439-96-5
Mg	0.2	7439-95-4
Fe	1	7439-89-6

L6 ANSWER 9 OF 13 CA COPYRIGHT 2006 ACS on STN

Full Text

AN 128:41577 CA

TI Electrophotographic carrier with high chargeability and heat-resistance, developer and image formation

IN Takiguchi, Takeshi; Arahira, Fumihiro; Tsukano, Yoshifumi; Okado, Kenji; Ida, Tetsuya; Iida, Ikumi; Kukimoto, Tsutomu

PA Canon K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 29 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 09281752	A2	19971031	JP 1996-135723	19960507
	JP 3374657	B2	20030210		
				JP 1996-49635	A 19960214

AB The title carrier has a polyolefin resin layer on its surface, and the polyolefin resin is made of at least ethylene and an unsatd. C₅4 monomer with ratio 99:1-1:99. The developer contains the above carrier and a specified toner.

IT 199521-73-8, Iron magnesium manganese oxide
(Fe1.2Mg0.19Mn0.21O2.41)

RL: TEM (Technical or engineered material use); USES (Uses)
(ferrite for electrophotog. carrier with polyolefin cover layer)

RN 199521-73-8 CA

CN Iron magnesium manganese oxide (Fe1.2Mg0.19Mn0.21O2.41) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
-----	-----	-----
O	2.41	17778-80-2
Mn	0.21	7439-96-5
Mg	0.19	7439-95-4
Fe	1.2	7439-89-6

L6 ANSWER 10 OF 13 CA COPYRIGHT 2006 ACS on STN

Full Text

AN 127:240972 CA

TI Carrier for electrophotographic developer, two-component developer, and image formation

IN Takiguchi, Takeshi; Okado, Kenji; Ida, Tetsuya

PA Canon K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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STN Columbus

PI JP 09211897 A2 19970815 JP 1996-39072 19960202
 JP 3494193 B2 20040203 JP 1996-39072 19960202

AB The title carrier comprises magnetic carrier core particles of a ferrite component (Fe₂O₃)_xAyBz (A = MgO, Ag₂O, their mixt.; B = Li₂O, MnO, CaO, SrO, Al₂O₃, SiO₂, their mixt.; x, y, and z indicate wt. ratio satisfying the relations, $0.2 \leq x \leq 0.95$; $0.005 \leq y \leq 0.3$; $0 \leq z \leq 0.795$, and $x + y + z \leq 1$) and a capacitor component applied on the surface of the particles so that the electrostatic capacity of the carrier (obtained from the applied voltage frequency dependence of the impedance measured under a sine a.c. voltage of amplitude width 2 kV) is 10-15-10-11 F. The two-component developer consists of the carrier and a toner and has an impedance $\geq 1.2 \times 10^8 \Omega\text{-cm}$ (under a sine a.c. voltage of amplitude width 2 kV and frequency 2 kHz) and a capacity (obtained from the above-mentioned applied voltage frequency dependence) 10-14-10-11F. An imaging method using the developer is also claimed. The developer provides high d. and low fog images with good gradation and without edge effect in continuously repeated copying using large image area color originals. Thus, particles comprising MgO-MnO-Fe₂O₃ (18:22:60 wt. ratio) was coated with a compn. contg. grafted carbon black and a hardening-type silicone resin to give a carrier (electrostatic capacity 2×10^{-12} F).

IT 195440-13-2, Iron magnesium manganese oxide (Fe_{0.66}Mg_{0.39}Mn_{0.27}O_{1.66})
 RL: TEM (Technical or engineered material use); USES (Uses)
 (electrostatic capacity-controlled electrophotog. carrier contg. coated ferrite)

RN 195440-13-2 CA

CN Iron magnesium manganese oxide (Fe_{0.66}Mg_{0.39}Mn_{0.27}O_{1.66}) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
=====	=====	=====
O	1.66	17778-80-2
Mn	0.27	7439-96-5
Mg	0.39	7439-95-4
Fe	0.66	7439-89-6

L6 ANSWER 11 OF 13 CA COPYRIGHT 2006 ACS on STN

Full Text

AN 115:103953 CA

TI Electric transport properties of manganese-magnesium mixed ferrites

AU Reddy, V. Devender; Malik, M. A.; Reddy, P. Venugopal

CS Dep. Phys., Osmania Univ., Hyderabad, 500 007, India

SO Materials Science Engineering, B: Solid-State Materials for Advanced Technology (1991), B8(4), 295-301
 CODEN: MSBTEK; ISSN: 0921-5107

DT Journal

LA English

AB Thermoelec. power studies are made of Mn-Mg mixed ferrites over the temp. range 300-700 K by using the differential method. The Seebeck coeff. S is found to decrease while the carrier concn. n and the charge carrier mobility μ are found to increase with increasing temp. On the basis of these results an explanation for the conduction mechanism in Mn-Mg mixed ferrites is suggested.

IT 108823-01-4, Iron magnesium manganese oxide (Fe₂Mg_{0.5}Mn_{0.5}O₄)
 110665-81-1, Iron magnesium manganese oxide (Fe₂Mg_{0.75}Mn_{0.25}O₄)
 110665-82-2, Iron magnesium manganese oxide (Fe₂Mg_{0.25}Mn_{0.75}O₄)
 110667-08-8, Iron magnesium manganese oxide (Fe₂Mg_{0.9}Mn_{0.1}O₄)
 RL: PRP (Properties)

STN Columbus

(elec. transport properties of)

RN 108823-01-4 CA

CN Iron magnesium manganese oxide (Fe₂Mg_{0.5}Mn_{0.5}O₄) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
=====		
O	4	17778-80-2
Mn	0.5	7439-96-5
Mg	0.5	7439-95-4
Fe	2	7439-89-6

RN 110665-81-1 CA

CN Iron magnesium manganese oxide (Fe₂Mg_{0.75}Mn_{0.25}O₄) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
=====		
O	4	17778-80-2
Mn	0.25	7439-96-5
Mg	0.75	7439-95-4
Fe	2	7439-89-6

RN 110665-82-2 CA

CN Iron magnesium manganese oxide (Fe₂Mg_{0.25}Mn_{0.75}O₄) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
=====		
O	4	17778-80-2
Mn	0.75	7439-96-5
Mg	0.25	7439-95-4
Fe	2	7439-89-6

RN 110667-08-8 CA

CN Iron magnesium manganese oxide (Fe₂Mg_{0.9}Mn_{0.1}O₄) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
=====		
O	4	17778-80-2
Mn	0.1	7439-96-5
Mg	0.9	7439-95-4
Fe	2	7439-89-6

L6 ANSWER 12 OF 13 CA COPYRIGHT 2006 ACS on STN

Full Text

AN 112:66647 CA

TI Magnetic carrier for electrostatographic developer for magnetic brush development

IN Imamura, Kenji; Saito, Hiroshi; Kakizaki, Katsuhisa; Makino, Motohiko

PA TDK Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	JP 01028234	A2	19890130	JP 1988-150879	19880617
	JP 06023870	B4	19940330		

STN Columbus

JP 1988-150879

19880617

AB In obtaining magnetic ferrite carrier particles expressed as $(\text{MO})_{100-x}(\text{Fe}_2\text{O}_3)_x$ ($\text{M} = \text{Mn}, \text{Zn}, \text{Mn} + \text{Zn}, \text{Mn} + \text{Mg}, \text{Mn} + \text{Mg} + \text{Zn}, \text{Mn} + \text{Mg} + \text{Zn} + \text{Cu}$, the at. ratio of Mn in M is ≥ 0.05 , when M contains Mg, its at. ratio is ≤ 0.05 ; $x \geq 53\%$), the firing is done in an atm. of controlled O partial pressure so that the particles possess the desired elec. resistivity. The carrier is esp. useful in a developer used in magnetic brush development.

IT 125081-80-3, Iron magnesium manganese oxide

($\text{Fe}_{0.72}\text{Mg}_{0.24}\text{Mn}_{0.40}\text{O}_{1.72}$)

RL: USES (Uses)

(magnetic carrier contg., for electrostatog. developer)

RN 125081-80-3 CA

CN Iron magnesium manganese oxide ($\text{Fe}_{0.72}\text{Mg}_{0.24}\text{Mn}_{0.40}\text{O}_{1.72}$) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
=====	=====	=====
O	1.72	17778-80-2
Mn	0.4	7439-96-5
Mg	0.24	7439-95-4
Fe	0.72	7439-89-6

L6 ANSWER 13 OF 13 CA COPYRIGHT 2006 ACS on STN

Full Text

AN 108:30267 CA

TI Charge transport in manganese-magnesium ferrites

AU Reddy, P. V.

CS Univ. Coll. Technol., Osmania Univ., Hyderabad, 500 007, India

SO Physica Status Solidi A: Applied Research (1987), 102(2), 751-8

CODEN: PSSABA; ISSN: 0031-8965

DT Journal

LA English

AB Thermoelec. power studies on mixed Mn-Mg ferrites ($\text{Mn}_{1-x}\text{Mg}_x\text{Fe}_{204}$, $0 \leq x \leq 0.9$) are undertaken over a temp. range 300 to 550 K by thermal probe method. On the basis of the sign of the Seebeck coeff., the ferrites under study are classified into n-type and p-type semiconductors. Temp. variation of Seebeck coeff. (Q), carrier concn. (n), mobility (μ), and Fermi energy (EF) are discussed. On the basis of these results, a conduction mechanism in Mn-Mg ferrites is suggested.

IT 108823-01-4 110665-81-1 110665-82-2

110667-08-8

RL: USES (Uses)

(thermoelec. property, carrier mobility and Fermi energy of)

RN 108823-01-4 CA

CN Iron magnesium manganese oxide ($\text{Fe}_2\text{Mg}_{0.5}\text{Mn}_{0.5}\text{O}_4$) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
=====	=====	=====
O	4	17778-80-2
Mn	0.5	7439-96-5
Mg	0.5	7439-95-4
Fe	2	7439-89-6

RN 110665-81-1 CA

CN Iron magnesium manganese oxide ($\text{Fe}_2\text{Mg}_{0.75}\text{Mn}_{0.25}\text{O}_4$) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
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STN Columbus

Component	Ratio	Component Registry Number
O	4	17778-80-2
Mn	0.25	7439-96-5
Mg	0.75	7439-95-4
Fe	2	7439-89-6

RN 110665-82-2 CA

CN Iron magnesium manganese oxide (Fe₂Mg_{0.25}Mn_{0.75}O₄) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	4	17778-80-2
Mn	0.75	7439-96-5
Mg	0.25	7439-95-4
Fe	2	7439-89-6

RN 110667-08-8 CA

CN Iron magnesium manganese oxide (Fe₂Mg_{0.9}Mn_{0.1}O₄) (9CI) (CA INDEX NAME)

Component	Ratio	Component Registry Number
O	4	17778-80-2
Mn	0.1	7439-96-5
Mg	0.9	7439-95-4
Fe	2	7439-89-6

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